REPORT OF THE

OFFICE OF THE AUDITOR GENERAL

238.1

PUBLIC UTILITIES COMMISSION

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ADJUSTMENT OF ELECTRIC RATES FOR FUEL COST CHANGES

AUGUST 1975

TO THE

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August 28, 1975

The Honorable Speaker of the Assembly
The Honorable President pro Tempore of the Senate
The Honorable Members of the Senate and the Assembly of the Legislature of California

Members of the Legislature:

I am today releasing the report of the Office of the Auditor General on the procedures of the Public Utilities Commission (PUC) for adjustment of electric rates for fuel-cost changes.

Utility rates cannot be increased without commission approval. For general rate increases, the commission requires extensive justification at public hearings that may take more than a year to complete. In 1972, the PUC established simplified procedures for fuel-cost rate increases so that utility companies could increase customer rates to offset anticipated higher fuel costs without having to go through extensive commission hearings.

The Auditor General's report cites a significant deficiency in these procedures. The three major California electric utilities reported that between the time the PUC authorized the simplified procedures and December 31, 1974, the amounts billed to customers to offset anticipated higher fuel costs exceeded the companies' actual fuel-cost increases by $270.6 million. The difference was caused by unusually favorable weather conditions and customers' energy conservation efforts, according to the utility companies.

The PUC has not required that fuel-cost rate increases be used exclusively for increases in costs of fuel. The commission has not required the utility companies to maintain

separate accounting records so that excessive customers' collections would be readily identifiable and could then be considered by the PUC in authorizing subsequent rate adjustments. As a result, customers' billings in excess of fuel costs have been accounted as earned income available for payment of dividends to the companies' stockholders.

To remedy this situation, the Auditor General's report recommends that:

- The Legislature amend the Public Utilities Code to require utilities to maintain a reserve account when rate changes have been authorized to offset specific costs

- The Public Utilities Commission require the use of reserve accounts and consider the balances in such accounts in approving subsequent customer rate changes.

If these recommendations are properly implemented, all collections from customers resulting from simplified rate-making procedures for fuel-cost changes will be used for the purpose for which they were collected, while the utilities will continue to be reimbursed for fuel-cost increases actually incurred without the expense and delay of general rate hearings.

If these recommendations had been in effect, the approximately $270 million excess billings to customers would not have been accounted as earned income available for payment of dividends to the utility companies' stockholders.

In a response contained in the report starting on page 10 the President of the Public Utilities Commission stated that the use of reserve accounts is one of several matters under consideration by the PUC. However, he concluded that legislation is unnecessary because the commission already has the authority to establish a reserve account.

Respectfully submitted,

Bob Wilson

BOB WILSON, Chairman
Jt. Legislative Audit Committee

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August 26, 1975

Honorable Bob Wilson
Chairman, and Members of the
Joint Legislative Audit Committee
Room 4126, State Capitol
Sacramento, California 95814

Dear Mr. Chairman and Members:

Transmitted herewith is our report on the Public Utilities Commission's procedures for adjustment of electric rates for fuel-cost changes.

Respectfully submitted,

Glen H. Merritt
Chief Deputy Auditor General

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TABLE OF CONTENTS

INTRODUCTION

In response to a legislative request, we are reviewing the operations of the Public Utilities Commission. This report concerns our review of the procedures authorized by the commission for adjusting customers' rates for electric service to offset changes in the utilities' fuel costs. Our review was limited to records of the Public Utilities Commission and did not include an examination of the records of the companies involved.

Utility rates cannot be increased without a showing of need and a finding by the commission that a specific amount of increase is justified. For general rate increases, the showing of need by major electric utilities involves voluminous data presented in exhibit form together with direct testimony and cross examination. Such cases may take more than a year to complete.

In 1972, the commission first approved procedures for fuel-cost rate adjustments. These adjustments are authorized for future periods, as are general rate changes. Under the fuel-cost adjustment procedures, the utilities can apply quarterly for a rate increase for the next 12 months based on fuel prices in effect prior to the rate change. The application is reviewed by the commission staff, and the rate change does not become effective until the commission authorizes it.

The fuel-cost adjustment procedure includes some of the essential elements of the rate-making procedure. However, because of the simplified

application and approval process, rate adjustments for changes in fuel costs can be accomplished in a more timely manner than through the general rate increase procedure.

The commission is presently holding hearings on its investigation into electric utility fuel-cost adjustment procedures. These hearings are scheduled to be completed by November 30, 1975. (Case No. 9886, authorized March 18, 1975.) One of the issues under consideration in the commission's pending investigation is the disposition of the difference between revenues and expenses associated with fuel-cost rate adjustments.

FINDINGS

BILLINGS TO CUSTOMERS FOR ELECTRIC RATE INCREASES, APPROVED BY THE PUBLIC UTILITIES COMMISSION UNDER SIMPLIFIED PROCEDURES FOR FUEL-COST INCREASES, HAVE NOT BEEN REQUIRED TO BE USED EXCLUSIVELY FOR INCREASES IN COSTS OF FUEL.

The Public Utilities Commission (PUC) established simplified procedures so that utility companies could increase customer rates to offset anticipated higher fuel costs without having to go through extensive commission hearings. These procedures require that rate increases be based on estimates of average future conditions, such as, weather, availability of fuels, customer consumption, characteristics of generating units, and down time for repairs. The procedures for adjusting customer rates for changes in cost of fuel are described in Appendix A.

Variations from "average" conditions may easily create situations in which rate increases to offset fuel costs will be either inadequate or excessive. The effects of variations in weather conditions on fuel costs are described in Appendix B.

Billings to Customers Exceeded Actual Fuel-Cost Increase

The three major California electric utility companies reported that from the various times the PUC authorized the simplified procedures for each utility to December 31, 1974, customer billings of $707.5 million for rate

increases to offset higher fuel costs have exceeded their actual cost increases by $270.6 million.

The following table, based on information submitted to the PUC by the companies, summarizes the reported billings to customers for fuel-cost increases, the actual recorded fuel-cost increases and the resulting $270.6 million of billings to customers in excess of actual fuel-cost increases by the three electric utility companies through December 31, 1974.

Excess Billings to Customers
Through December 31, 1974

Company	Beginning Date of Fuel-Cost Rate Increases	Rate Increases Billed To Customers for Fuel-Cost Increases	Recorded Fuel-Cost Increase	Excess Fuel-Cost Billings
		(Amounts rounded to nearest $100,000)		
Southern California Edison	May 1972	$408.0	$262.2	$145.8
Pacific Gas and Electric	April 1973	251.2	142.9	108.3
San Diego Gas and Electric	August 1973	48.3	31.8	16.5
Total		$707.5	$436.9	$270.6

A substantial part, 86 percent, of the excess billings occurred during 1974. The following table relates these amounts and the 1974 net incomes of the three companies.

Company	1974 Net Income	1974 Excess Fuel-Cost Billings	1974 Excess Fuel-Cost Billings As Percent of 1974 Net Income
Southern California Edison Company	$218.3	$134.5	62%
Pacific Gas and Electric Company	261.2	82.8	32%
San Diego Gas and Electric Company	37.9	16.5	44%
Totals	$517.4	$233.8	45% average

As the table shows, the combined excess billings for the three companies is equal to 45 percent of the 1974 combined net incomes.

Two of the three utilities reported substantial increases in their 1974 net income as compared to their 1973 reported income. The 1974 net income of Southern California Edison Company was 47.8 percent greater than the prior year; that of San Diego Gas and Electric Company was 36.7 percent greater than the prior year; and that of Pacific Gas and Electric Company was 7 percent greater than the prior year. The latter company, because of its proximity to hydroelectric power sources, is less dependent upon fossil fuels and hence less affected by changes in fuel cost and availability.

The annual reports to the stockholders of these companies describe the reasons for the increases cited above as follows:

Southern California Edison Company

"...The increase in earnings is attributable almost entirely to unusually favorable weather conditions - record rainfall - which made available more lower-cost hydroelectric power, and the availability of more natural gas fuel than had been anticipated."

San Diego Gas and Electric Company

"-Weather was warmer than normal. Therefore, more natural gas was available for power plant fuel than had been anticipated.

-Heavy rains in the Pacific Northwest made available an unexpectedly large amount of inexpensive hydro-electric power, which we purchased.

-Customer conservation reduced electric sales."

Pacific Gas and Electric Company

"...Greater than normal hydroelectric generation reduced substantially the amount of expensive fuel oil that would have been needed for steam-electric generation...."

Excess Billings Have Not Been Maintained Exclusively for Fuel-Cost Increases

Customer billings that exceeded fuel costs have not been maintained exclusively for fuel-cost increases, but rather have been accounted as earned income available for payment of dividends to the companies' stockholders. The PUC has not required the utility companies to maintain separate accounting records for income from fuel-cost rate increases and actual fuel-cost increases.

Maintaining a reserve account would assure specific identification of the revenue and expenses associated with fuel-cost rate adjustments. In a similar situation, the federal Tax Reform Act of 1969 requires certain utilities to maintain a reserve account for the amount of the difference in the tax liability when the utilities use a depreciation method that results in a smaller tax liability than the method used to determine costs for establishing customers' rates.

If, in a similar manner, the commission were to require the companies to maintain a reserve account for the over- and underbillings for fuel-cost increases, assurance would be provided that the excess collections from customers would be readily identifiable. If the commission were to then give consideration to the balance in the reserve account in authorizing subsequent rate adjustments, substantial excess billings to customers would be avoided.

The State Supreme Court in City of Los Angeles vs. Public Utilities Commission, 7 C3d 331, in the following language affirmed a prior decision that rates can be set only for the future:

> "We pointed out that the fixing of a rate is prospective in its application and legislative in its character, that under Section 728 of the Public Utilities Code, as well as other sections of the code, the commission is given power to prescribe rates prospectively only, and that the commission could not, even on grounds of unreasonableness, require refunds of charges fixed by formal finding which had become final." (at p. 356)

Section 792 of the Public Utilities Code provides that the "...commission may establish a system of accounts to be kept by the public utilities subject to its jurisdiction..." and "...may prescribe the manner

in which such accounts shall be kept...." This language is permissive, whereas, the federal legislation regarding a reserve account for differences in the tax liability is mandatory. The addition of language such as the following to the first sentence of Section 792 of the Public Utilities Code would eliminate this inconsistency and would avoid potential conflict with the above-quoted Supreme Court decision:

> "...except that when the commission authorizes rate changes to offset for specific costs it shall require the public utilities to maintain reserve accounts so that the related revenues and costs shall be offset, and the commission shall consider any balance in such reserve accounts in authorizing subsequent rate adjustments."

Appendix C shows the current language of Section 792 of the Public Utilities Code.

CONCLUSION

The Public Utilities Commission has not required (1) separate accounting for the customers' billings for fuel-cost rate increases approved under simplified rate-making procedures, and (2) an offset of the actual increases in fuel costs against these billings. Excess billings have resulted. These excesses have been accounted as earned income and are available for payment of dividends to the companies' stockholders, in the same manner as if a general rate increase had been granted rather than an increase to offset for specified costs.

RECOMMENDATIONS

We recommend that the Legislature amend Section 792 of the Public Utilities Code to require utilities to maintain a reserve account when rate changes have been authorized to offset specific costs.

We recommend that the Public Utilities Commission (1) require the utilities to maintain reserve accounts in which the actual fuel-cost increases would be offset against related collections from customers; and (2) consider the balances in such reserve accounts in approving the amount of subsequent fuel-cost adjustments.

BENEFITS

If properly implemented, these recommendations will assure that all collections from customers resulting from simplified rate-making procedures for fuel-cost changes will be used for the purpose for which they were collected, while the utilities will continue to be reimbursed for fuel-cost increases actually incurred without the expense and delay of general rate hearings.

If these recommendations had been in effect from May 1972 through December 1974, billings to customers of approximately $270 million which were in excess of actual fuel-cost increases would have been accounted and could have been required to be used exclusively for fuel-cost increases rather than being accounted for as earned income available for payment of dividends to the utility companies' stockholders.

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Public Utilities Commission

STATE OF CALIFORNIA

FILE NO.

August 21, 1975

Office of the Auditor General
925 "L" Street, Suite 750
Sacramento, CA 95814

Gentlemen:

This is in connection with your letter of August 19, 1975 providing a copy of your August 1975 draft report on the "Adjustment of Electric Rates for Fuel Cost Changes."

1/

As indicated in the draft report, the Commission is presently holding hearings on this subject (Case No. 9886 issued on March 18, 1975). Essentially all of the items you have commented on are at issue in that proceeding and can be resolved without new legislation. In particular we do not agree with the implication throughout the draft that we are necessarily foreclosed in resolving the existing differences between fuel clause revenues and expenses. Evidence introduced in Case No. 9886 indicates that these differences are diminishing, and the Commission has not authorized further increases for Pacific Gas and Electric Company and Southern California Edison Company pending disposition of that issue in Case No. 9886. The difference for San Diego Gas & Electric Company has been reduced from $16.5 million as of December 31, 1974 to $2.9 million as of May 31, 1975.

The establishment of a reserve account is one of several methods under consideration by the Commission. While a reserve account would require identification of the differences,

1/ Comments deleted refer to items shown in draft report but not included in this report.

it would not result in a segregation of funds or, as suggested in the draft, limit the use of such funds to a "specific purpose." ... 1/ The suggested amendment to Section 792 is not necessary in that the Commission has the power under the present broad language of the Section to establish a reserve account.

We appreciate the opportunity to have commented on the draft and would be pleased to discuss the recommended changes if you require further clarification.

Very truly yours,

D. W. HOLMES, President

Attach.

1/ See comment 1/ on page 10.

PROCEDURES FOR ADJUSTING CUSTOMERS' RATES FOR CHANGES IN COST OF FUEL

Following are the primary steps in computing adjustments to customers' rates for changes in cost of fuel for generating electricity.

- An estimate is prepared of the ensuing year's total electricity requirements for the company. This consists of the customers' anticipated usage plus off-systems requirements. The latter includes such items as deliveries to the state for the pumping requirements of the California Aqueduct and deliveries to other utility companies.

- The expected sources of electricity are identified, including that generated by the company and that to be purchased from other sources. The latter includes electricity from (1) the Pacific Northwest through the Canadian Entitlement Agreement, (2) State of California's Oroville-Thermalito Hydroelectric Complex, and (3) transactions with other utility companies within the arrangements of the California Power Pool Agreement.

- The company's total system electric requirements which will not be supplied by off-system resources, by nuclear generation or by hydroelectric production are assumed to be generated by the company's fossil fuel (coal, gas and oil) generating units.

- The quantity of fossil fuel to be used is estimated by using a computer which simulates the operations of the company's electric system. Consideration is given to minimum and maximum loading of generating units, cost characteristics of each unit, scheduled outages, area protection and other system reliability considerations, and the estimated availability of electricity to be purchased from other sources. The simulation program allocates production requirements to generating units and calculates the fuel requirements of each unit. Fuel requirements are met with the least expensive fuels, coal and natural gas, up to the estimated availability of such fuels. All additional requirements are assumed to be met with the most expensive fuel oil.

Fuel cost rate adjustments, the same as general rate adjustments, are fixed for the future and cannot be retroactively modified once lawfully enacted by the Public Utilities Commission. Therefore, the fuel costs for which customers' rates are being adjusted are expressed in terms of unit costs of the quantities of the fuel needed to produce a million BTUs of heat, rather than purchase units such as barrels of diesel oil.

Not all electricity sold in California is subject to rate adjustments by the PUC. For example, power is sold to the state to operate the State Water Project at fixed rates which were established by contract in 1967 and which are not expected to be changed until 1983. Also, power sold outside of California

is not regulated by the Public Utilities Commission, but is subject to regulation by the Federal Power Commission. It is impossible to identify the specific kilowatts of electricity produced by individual generating units as being those sold to a particular customer. Therefore, in computing rate adjustments, it is assumed that both the customers for which rates are not adjusted and those for which rates are adjusted receive power proportionately from all generating sources. The calculation of the California customers' rate change excludes the proportional amount of fuel cost increase applicable to (1) those customers which are not subject to rate change (such as the state), and (2) those customers which are subject to regulation by the Federal Power Commission.

EFFECTS OF WEATHER CONDITIONS ON FUEL COSTS

If the commission set customers' rates based on actual experience, no over- or undercollection would occur; however, the utilities would in effect be assured of a specific profit or return. As stated on page 7 of this report, the State Supreme Court has ruled that rates can be set only for the future. This requirement necessitates that projections be made of future operating conditions. Projections are based on average conditions because future conditions cannot be accurately predicted. Such projections include all factors that affect operations, including weather conditions.

Weather conditions influence how much of the total electric generation is produced by the various methods. During periods of above-average rainfall, larger proportions of total production are by hydroelectric generation. During periods of mild temperature greater amounts of relatively low-cost natural gas, which otherwise would be used for heating, are available for electric production. In contrast, during severely dry or cold weather, greater amounts of electricity would have to be produced using fuel oil. The following two changes resulting from the energy shortage have caused weather conditions to become a major factor in the costs of generating electricity.

- Price increases for oil have been substantially greater than price increases for other fuels. This has produced a greater difference in the cost of production by burning oil compared to the costs of other methods of electric generation.

- At the same time, there has been a reduction in the availability of natural gas for electric production. This has forced a greater reliance on the other fuels.

The following information regarding the rise in the price of oil and the reduction in the availability of natural gas is from the last rate adjustment for fuel cost changes approved for Pacific Gas and Electric Company in December 1974. The impact on other electric utilities of the changes in price and availability is similar to the following.

Pacific Gas and Electric Company
Comparison of Prices of Oil and Natural Gas

	Unit Cost of Fuel in Cents per Million BTUs			
			Increase	
Type of Fuel	1970	1975	Amount	Percent
Oil	39.864¢	192.183¢	152.319¢	482
Natural Gas	37.978¢	86.955¢	48.977¢	229
Excess of cost of oil over natural gas				
Amount	1.886¢	105.228¢	103.342¢	
Percent	5%	121%		

Comparison of Anticipated Oil
and Natural Gas Usage

	Percent Usage	
Type of Fuel	1970	1975
Oil	2	60
Natural Gas	98	40

The last Pacific Gas and Electric general rate increase was based on 1970 conditions. At that time, during colder than normal periods when natural gas customers consumed more fuel for heating, the company experienced less than five percent higher fuel costs by substituting oil for the natural gas which was not then available. This substitution of fuels amounted to less than two cents per million BTUs of heat. In contrast, in 1975 a similar substitution of oil for natural gas would result in 121 percent higher fuel costs, or about $1.05 per million BTUs of heat. The reverse situation would occur when weather conditions allowed use of a greater proportion of natural gas, rather than oil, than in an average year.

In 1970, when there was little difference between the cost of oil and natural gas, only two percent of the fossil fuel usage was the most expensive, oil. Currently, when oil costs are more than double those of natural gas, 60 percent of the fossil fuel generation is by oil. Over half, 54 percent, of this Pacific Gas and Electric fuel-cost adjustment results from the reduction in the availability of natural gas and the resulting increase in the use of oil. Therefore, even if the prices of fuels do not change, variations in the costs of producing electricity will continue because of changes in the availability of fuels and hydroelectric power.

Unlike the other major methods of generation, hydroelectric production requires no fuel. Rainfall amounts regulate the production at both company-owned water storage facilities and other facilities from which electricity is purchased, such as the Oroville-Thermalito power plants of the State Water Project. All power from the state's facility is sold to Southern California

Edison, Pacific Gas and Electric, and San Diego Gas and Electric. The last fuel-cost adjustment approved for Pacific Gas and Electric Company in December 1974 was 0.595 cents per kilowatt-hour, or more than twice the kilowatt-hour price of 0.259 cents paid to the state for Oroville-Thermalito power.

Variations in the amounts of electricity delivered from the state's and other hydroelectric sources have a greater impact on fuel costs than do temperature variations. Temperature affects which fuel, primarily natural gas or oil, is used for electric generation, while the amount of rainfall influences the total quantity of fossil fuels consumed.

In the past, weather variations were regarded as part of the business risk that the companies assumed. The small savings that were realized during periods of favorable weather conditions were offset by the minor cost increases incurred during unfavorable conditions. Variations in weather conditions began to have material effects on electric generating costs as energy supply became a major problem. Thus, variations in hydroelectric availability had a much greater impact on utility costs.

SECTION 792 OF THE PUBLIC UTILITIES CODE

The commission may establish a system of accounts to be kept by the public utilities subject to its jurisdiction, or classify such public utilities and establish a system of accounts for each class, and may prescribe the manner in which such accounts shall be kept. It may also prescribe the forms of accounts, records, and memoranda to be kept by such public utilities, including the accounts, records, and memoranda of the movement of traffic as well as the receipts and expenditures of moneys, and any other forms, records, and memoranda which in the judgment of the commission may be necessary to carry out any of the provisions of this part.